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ABSTRACT

The most widely used pension plans in the United States are defined-benefit plans under which employers pay workers a fixed pension, usually a percentage of their final salaries. Defined-contribution pension plans, under which employers and employees set aside funds that are invested for the employees, are growing in popularity and are particularly common in colleges and universities. Profit-sharing plans, voluntary savings plans, and individual retirement accounts are types of defined contribution plans. Pension plans commonly receive advantageous tax treatment, but efforts are currently being made to eliminate these advantages for defined-contribution plans. This report reviews the operational differences between the two types of pension plans and notes the levels of performance achieved by each. The problems posed by defined-benefit plans are analyzed. These include severe losses to employees changing employers, the potential for manipulation of defined-benefit plans by employers to their own advantage, the underfunding of the plans, their low rates of return, and their susceptibility to the effects of inflation. The report concludes that eliminating tax advantages for defined-contribution plans would be a serious mistake, hindering labor mobility, restricting retirement income, and decreasing funds available for investment. (PGD)

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PENSION PLANS AT RISK:
A POTENTIAL HAZARD OF DEFICIT REDUCTION AND TAX REFORM

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PENSION PLANS AT RISK:
A POTENTIAL HAZARD OF DEFICIT REDUCTION AND TAX REFORM

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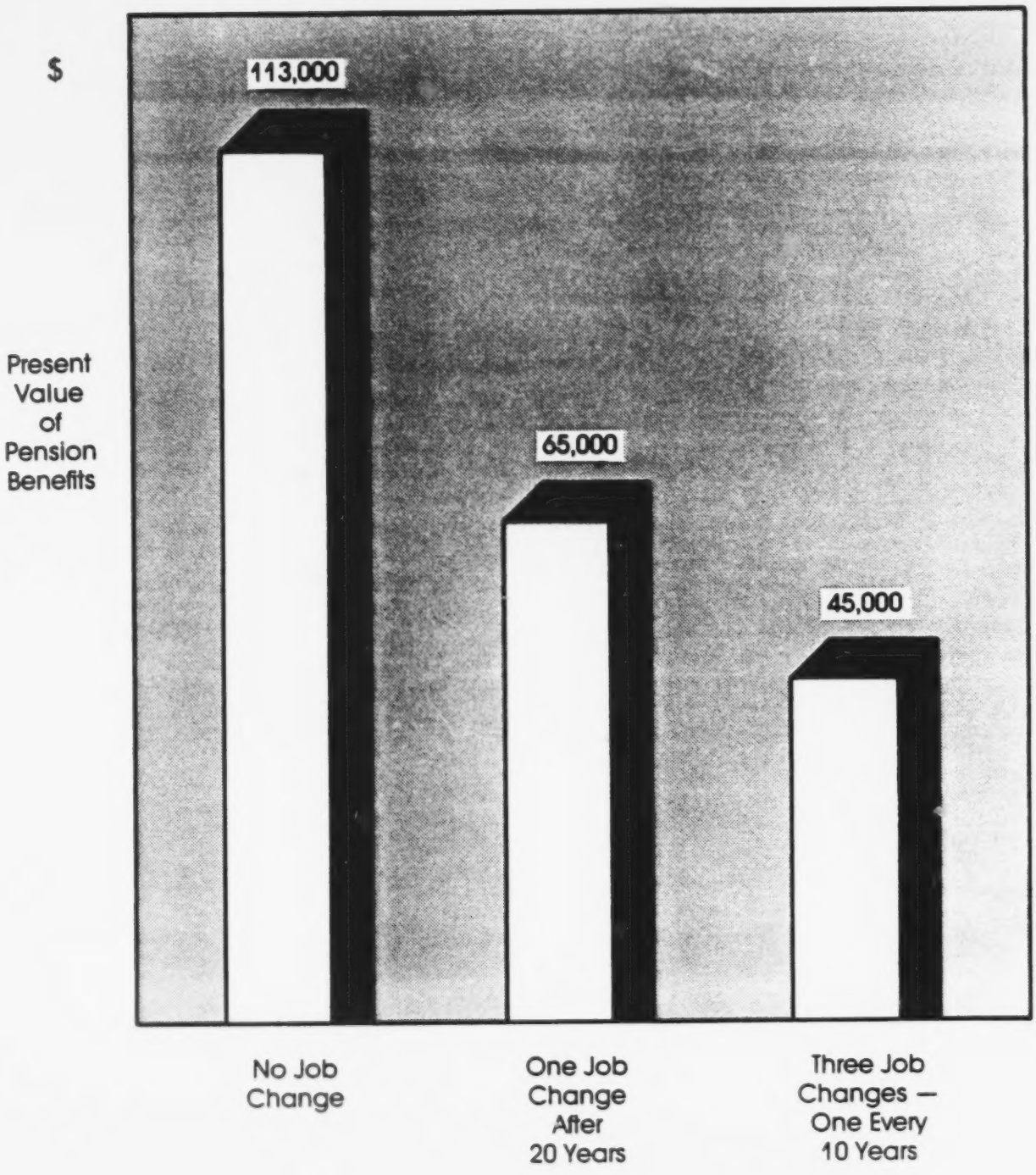
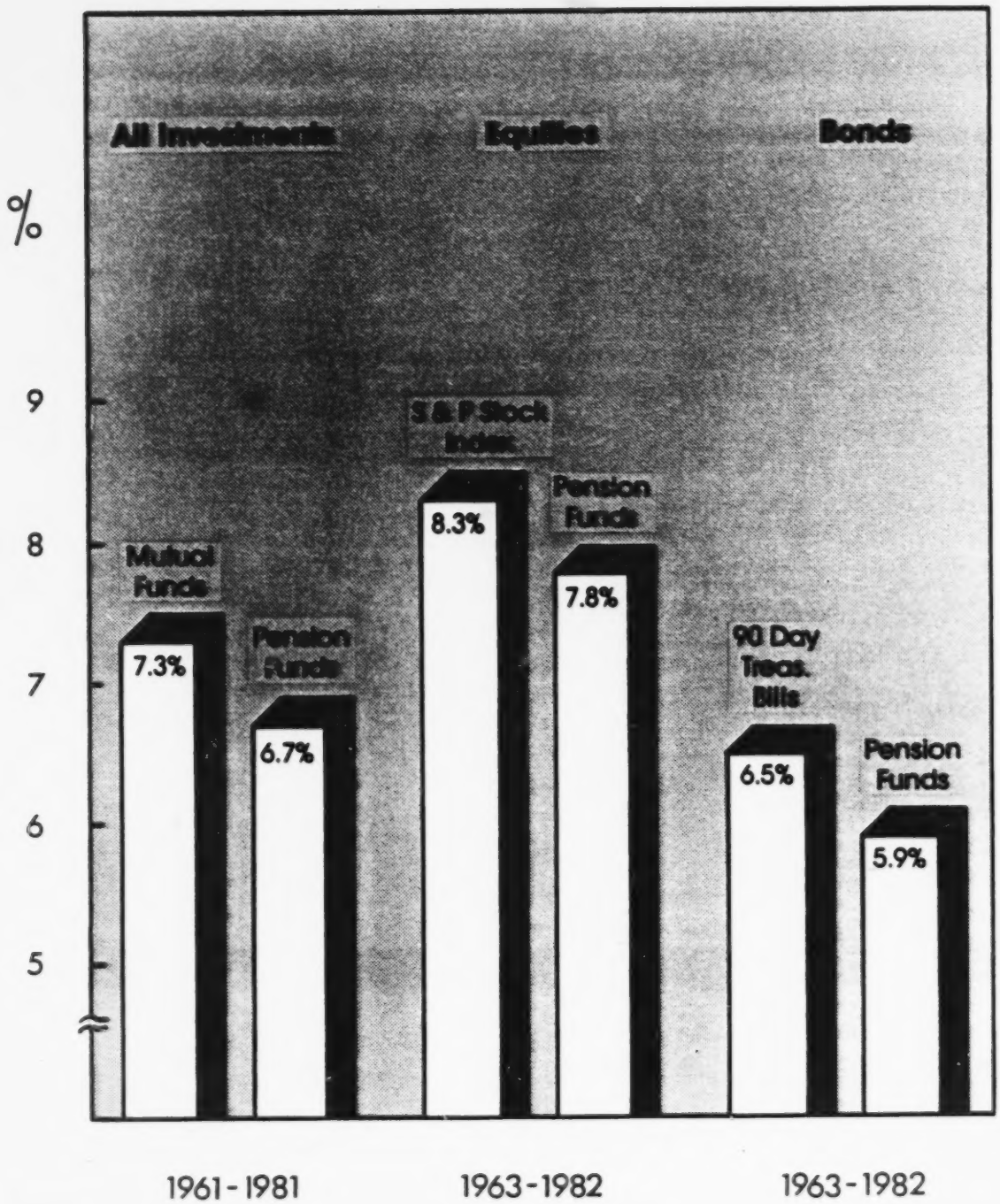
JOB CHANGES AND PENSION BENEFITS

(For a 25 Year Old Male Worker Under a Conventional Pension Plan — With Full Vesting In All Cases)



Source: National Center for Policy Analysis

PENSION FUND RATES OF RETURN



Source: National Center for Policy Analysis

EXECUTIVE SUMMARY

As the Administration and Congress pursue deficit reduction and tax reform, America's private pension system finds itself in great jeopardy. Unfortunately, many current proposals would bias the choices of employers and their employees toward pension plans that embody the worst features of the private pension system and away from pension plans consistent with important social goals. The plans at risk are profit-sharing plans, voluntary savings 401(k) plans, and perhaps even individual IRAs.

The most widely used pension plan in the American economy--and unfortunately, the one which receives special blessing in most tax reform proposals--is called a defined-benefit plan. Under this type of plan, employers promise to pay a fixed pension--usually a percent of final salary--to workers in their retirement years. One problem with these plans is that employers may not be able to keep their promises. It is widely known that the pension plans of many major corporations are seriously underfunded. Less well-known is the fact that the official numbers understate the full dimensions of the problem. The official, reported liabilities of defined-benefit pension plans are based on the assumption that companies have the option to terminate immediately their plans. The actual liabilities are about $150 billion larger if we assume that these plans will not be terminated, but will continue to operate until current workers retire.

Another problem with defined-benefit pension plans is that workers who change jobs suffer substantial reductions in expected retirement pensions. Even among workers who are fully vested, a change in employers typically causes a loss of tens of thousands of dollars in retirement benefits.

- A worker earning a moderate income can lose up to $45,000 in pension benefits as a result of one job change in mid-career.

- If the worker changes employers three times over a career, the loss of pension benefits can reach $68,000.

Defenders of defined-benefit pension plans often argue that these plans are managed by experienced professionals, whereas in profit-sharing or voluntary savings plans investment decisions often are made by the employees themselves, who are unsophisticated in such matters. The performance of traditional pension managers, however, has been anything but spectacular. Although pension funds have held their own in recent years, their performance over the long haul has been disappointing. Over the last two decades:

- Pension funds averaged a 6.7 percent rate of return, while mutual funds averaged 7.3 percent.

- Pension fund investments in the stock market earned a 7.8 percent rate of return, while the stock market as a whole was paying 8.3 percent.

- Pension fund investments in bonds earned a 5.9 percent rate of return, while 90-day Treasury Bills were paying 6.5 percent.

Wise social policy requires a tax system that gives employers and employees an opportunity to make unbiased choices among alternative ways of providing for individual retirement needs.

INTRODUCTION

American companies and institutions provide their workers with two distinct types of pension plans. The first is called a defined-benefit plan, and it is the most common pension scheme in American industry. Under this arrangement, workers are promised a retirement pension equal to some fraction of their final salaries. The second is called a defined-contribution plan, and is frequently the only retirement plan used by colleges and universities. It also is used by industry, either as a sole retirement plan or in combination with defined-benefit plans. Under this kind of pension scheme, funds are set aside and invested on behalf of employees. When the retirement age arrives, employees get whatever is in the plan.[1] Profit-sharing plans, voluntary savings 401(k) plans, and Individual Retirement Accounts (IRAs) are types of defined-contribution plans, although IRAs are set up and managed by the individual employee.

Tax advantages provide the strongest motivations for establishing either kind of pension plan. Both employer and employee contributions to pension funds are excluded from income for the purpose of computing personal income taxes. In addition, investment income from these funds is not taxed at the time it is earned. Individuals pay taxes on pension benefits only when they start collecting them. If they are retired, they can expect to be in lower tax brackets than when they worked. Even if they are not in a lower bracket, they enjoy a substantial deferral of tax on income. Finally, lump-sum distributions from defined-contribution plans are eligible for 10-year income averaging, which results in a very generous tax advantage.[2]

THE ATTACK ON DEFINED-CONTRIBUTION PLANS

A recent NCPA study[3] argued that a private pension system based on defined-benefit pension plans is an inherently defective system, whereas defined-contribution plans provide a basis for developing a sound private pension system.

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[1] Some employers allow for lump-sum distributions to retirees, others take the accumulated sum and purchase an annuity on behalf of the employees.

[2] Suppose a retiree gets a lump-sum benefit of $250,000 at age 65. The retiree will take the $250,000 and divide by 10, obtaining average 10-year income of $25,000. Income tax on the $25,000 average is computed, and the total tax payment is 10 times the amount, considerably lower than if the retiree has to pay taxes on one-quarter of a million dollars of income in one year. The even greater tax benefit is the fact that a lump-sum distribution is taxed irrespective of other income. That is, no matter how much other income the retiree has, the tax on the lump-sum distribution is unaffected.

[3] Edward J. Harpham, "Private Pensions in Crisis: The Case for Radical Reform" National Center for Policy Analysis, Policy Report #115, January, 1984.

Not all agree with this view, however. Even before the NCPA study led to spirited exchange of views on the editorial pages of the Wall Street Journal[4], the pension establishment left no doubt about where it stood. The traditional pension bureaucracy realized that pressures to reduce the deficit and achieve tax simplification would inevitably lead lawmakers to take a close look at the tax treatment of pensions, and it was loud and vocal about how the pension issue should be resolved.

Consider the remarks of Charles C. Tharp, former executive director of the Pension Benefit Guarantee Corporation, in the fall of 1984:[5]

> "In the coming year in Washington, we may be facing a great debate on the overall shape of our pension system in America." Contributing to that debate, he said, "defined-benefit plans are the best method yet devised of accomplishing both the employer's and employee's retirement plan objectives."

Or, consider the remarks of Robert A. G. Monks, formerly the U.S. pension administrator at the U.S. Department of Labor.

> "Simply put, a $200 billion dollar deficit cannot be satisfactorily reduced without substantial contribution from increased taxes or benefit reductions in the retirement income area....Can we at least agree that if a choice has to be made, defined-benefit plans, true pensions, should have top priority?"

Arguing that defined-contribution plans "are simply tax-aided savings plans" which often lead to "massive individual speculation," Monks added that,

> "Current policy is encouraging the utterly unsophisticated individual investor to try his luck in a system where the most skillful have failed. Should public dollars subsidize massive individual speculation in realistic recognition that if the speculation is unsatisfactory, the public will have to bail out the retirement needs of the losers?"

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[4]John C. Goodman and Edward J. Harpham, "Toward Real Pension Security", Wall Street Journal January 22, 1985. And "Letters to the Editor," Wall Street Journal, March 5, 1985.

[5]This and the following quotations are taken from Joel Chernoff, "Defined-Benefit Plans Backed," Pension and Investment Age, October 29, 1984.

These views apparently were well received at the Department of the Treasury. The Administration's original tax simplification proposal would have abolished voluntary savings 401(k) plans and sharply reduced the tax advantages associated with profit-sharing plans. The revised Administration proposal would reduce the annual amount that individuals can place in 401(k) plans from $30,000 to $8,000, and would further reduce these totals by the amount an individual puts in an IRA. In addition, the proposal would make it much more difficult for individuals to tap into one of these plans prior to actual retirement. More recently, Secretary of the Treasury James Baker has called for the elimination of 401(k) plans. Remarks made by Congressman Dan Rostenkowski (D-Ill.) prior to the unveiling of the President's latest tax proposal suggest that the entire defined-contribution system may be in jeopardy.[6] This may mean the elimination of tax advantages for profit-sharing plans.

The following will explain why defined-contribution plans should not be discouraged through revisions in the tax code.

SOME PENSION FACTS[7]

In recent years there has been remarkable growth in pension fund coverage and pension fund assets.

- In 1950, private plans held $51 billion (1984 dollars) in total assets; by 1984 total private pension assets stood at more than $1 trillion.
- In 1950, 10 million private sector employees had pension coverage; by 1984 this had risen to more than 40 million.

The total number of plans keeps rising year by year. There are now 828,000 retirement plans, excluding IRAs and Keoghs. Of these, 252,000 are defined-contribution and 576,000 are defined-benefit. In 1983, 31.3 million non-government employees were covered by defined-benefit plans; 7.2 million employees were covered primarily by defined-contribution plans, and 15.1

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[6]The Honorable Dan Rostenkowski (D-Ill.), Chairman, Committee on Ways and Means, U.S. House of Representatives, "Announces a Comprehensive Review of National Retirement Income Policy," Press Release, U.S. House of Representatives, March 1, 1985.

[7]Unless otherwise noted, the statistics in this section are taken from American Council of Life Insurance, Pension Facts, 1984/1985 and Richard A. Ippolito, Pensions, Economics and Public Policy, (Homewood, Illinois: Richard D. Irwin) forthcoming.

million employees had primary coverage through a defined-benefit plan and secondary coverage through a defined-contribution plan. In addition, approximately 21 million workers were covered by Railroad Retirement, federal civilian, and state and local government plans.

The assets held by private pension funds are enormous.

- The total wealth currently held by private pension funds, excluding IRAs and Keogh Accounts, is on the order of $1 trillion dollars.
- IRAs and Keogh Accounts are worth another $103 billion.
- Various government plans have roughly $400 billion in assets.

Unofficial Department of Labor projections estimate pension fund wealth will be in the vicinity of $2.2 trillion by the year 2000.

Clearly, then, pension funds represent an important way in which American workers save for their retirement years, and, in the future, pensions will represent an increasingly important source of income for retirees.

- Today, 28 percent of all new household saving is in the form of private pension and insurance reserves, up 19 percent since 1970.[8]
- By the year 2010 pension income will constitute 71 percent of the income of new retirees.[9]

Moreover, pension funds are not merely passive vehicles for individual saving. Studies suggest that total domestic saving is as much as 50 percent higher than it otherwise would be as a direct result of pension funds.[10]

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[8]Sophie M. Korczyk, Retirement Security and Tax Policy (Washington, D.C.: Employee Benefit and Research Institute, 1984), Table V.2, p. 68.

[9]Sylvester J. Scheiber, Social Security: Perspectives on Preserving the System (Washington, D.C.: Employee Benefit and Research Institute, 1982) pp. 90 and 100.

[10]Peter A. Diamond and Jerry A. Hausman, "Individual Retirement and Savings Behavior," Journal of Public Economics, February 23, 1984, pp. 81-114.

DEFINED-BENEFIT VS. DEFINED-CONTRIBUTION PLANS

One of the most remarkable features of the pension industry is the way the mix of pension plans has changed in recent years.

- In 1960, only 35.3 percent of all pension plans were defined-contribution plans; the remainder were defined-benefit plans.[11]
- Over the period 1975-1981, 77.8 percent of all new plans were defined-contribution plans.
- The rate at which defined-contribution plans are being established exceeds the rate at which defined-benefit plans are being established by more than three to one.

The projected growth of defined-contribution plans exceeds, by a wide margin, growth in defined-benefit plans. The big question is, why?

At first glance it might seem that the defined-benefit pension plans are preferable to defined-contribution plans. After all, under a defined-contribution plan the amount workers receive during their retirement years depends upon how well pension fund investments perform, whereas defined-benefit plans promise a specific retirement benefit, typically around 60 percent of final pay.

In assessing defined-benefit plans, however, the key word is "promise." The promise is not a guarantee; it can be broken. Whether the promise is fulfilled depends on certain contingencies. For one thing it depends upon the worker's remaining with the same firm until the age of retirement. For another, it depends on the firm's remaining a viable, profitable entity for all of that time. Under these plans there is no specific account that is the private property of the workers. There is only a promise on the part of the employer. By contrast, under defined-contribution plans, workers do not face any of these contingencies. Monthly deposits made to individual accounts become the worker's private property.

One of the reasons for the 1974 passage of the Employment Retirement Income Security Act (ERISA) was that many pension promises were not being kept. Among other things, ERISA established a federal government insurance scheme for defined-benefit pensions (run by the Pension Benefit Guarantee Corporation). The idea was to create a fund to bail out the pension promises of firms that get into trouble with premiums collected from all firms.[12]

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[11] Ippolito, op.cit.

[12] For an analysis of the economic effects of ERISA, see Dennis E. Logue, Legislative Effects on Corporate Pension Plans, Washington: American Enterprise Institute, 1979. See also, Harpham, "Private Pensions in Crisis: The Case for Radical Reform,"pp. 15-26.

Yet, even with this system in place, employees and their employers are choosing to opt for defined-contribution pension plans instead of defined-benefit plans. What follows are some of the reasons why this is occurring.

PROBLEMS WITH DEFINED-BENEFIT PLANS: THE COST OF JOB CHANGING

Defined-benefit plans hinder labor mobility. They do so in two ways. First, defined-benefit plans typically have long vesting periods, which means that a worker must remain with a company for many years before becoming entitled to full pension benefits. Before 1975, some companies had vesting periods of 25 years or longer. ERISA, which became effective in 1975, requires that every full-time eligible worker must become fully vested after 15 years. (Most companies now vest after ten years, however.) This rule also applies to defined-contribution plans, although defined-contribution plans customarily have provided for immediate vesting or vesting within five years.

The lengthy vesting periods associated with defined-benefit plans mean that workers under these plans lose all or part of their pension benefits if they take a job with a different employer before they are fully vested. From a social point of view, this is troublesome because of the financial penalty (loss of pension benefits) attached to job changing. Vesting requirements discourage workers from changing jobs and thus interfere with the efficient working of the labor market. Lengthy vesting periods also are troublesome because if workers change jobs and do lose their pension benefits, the social rationale for tax subsidies for pension plans has been undermined--the goal of insuring that people provide for their own retirement.

A second way in which defined-benefit pensions hinder labor mobility is that the pension benefit formulas under these plans tend to be back-end loaded. That is, pension benefits tend to be heavily weighted toward what happens at the end of a worker's career, rather than at the beginning or middle of it. Consider, for illustrative purposes, the following benefit formula, representative of many defined-benefit pension plans:

CALCULATION OF PENSION BENEFITS IN A REPRESENTATIVE DEFINED-BENEFIT PLAN

Annual Pension Benefit = .015 x number of years worked x average of final three years' salary.

Suppose a male worker begins work at age 25, at a salary of $20,000 a year, and receives pay increases of 10 percent a year for 40 years. If he remains with the same employer throughout his working career, the value of his pension benefits (measured at today's prices) will be $112,903 at age 65. Now suppose this same employee changes employers after 20 years and continues to receive pay increases of 10 percent per year. Assume also that his two employers offer identical pension plans. The value of the worker's total pension benefits in this case is only $64,843; changing jobs has "cost" the employee $48,060 in pension benefits.

The reason for this reduction can be seen by looking at the above formula by which benefits are calculated. If the worker works for only one employer for 40 years, he will retire on an annual pension equal to 60 percent of average salary at ages 62, 63 and 64. His annual pension benefit is calculated as follows:

ANNUAL PENSION BENEFIT - ONE EMPLOYER

.015 x 40 x average salary at ages 62, 63, 64	=	60% of average salary at ages 62, 63 & 64

If the worker switches employers at age 45, his annual pension benefit from the second employer will be only one-half of this this amount--30 percent of average salary at ages 62, 63 and 64. This is because the worker has been working for his last employer for only 20 years rather than for 40 years. The real reduction in pension benefits, however, comes from the calculation of benefits owed by the first employer. From this employer the worker also receives 30 percent of average salary. However, average salary is calculated for the last three years of employment--at ages 42, 43 and 44 rather than at ages 62, 63 and 64. The calculation is as follows:

ANNUAL PENSION BENEFIT - TWO EMPLOYERS

From Second Employer	.015 x 20 x average salary at ages 62, 63 & 64	=	30% of average salary at ages 62, 63 & 64
	PLUS		
From First Employer	.015 x 20 x average salary at ages 42, 43 & 44	=	30% of average salary at ages 42, 43 & 44

In most cases a worker's salary is much smaller at ages 42, 43 and 44 than it is at ages 62, 63 and 64, Thus the annual pension benefit received from the first employer is much smaller than the pension received from the second one. In this example, the present value of lost pension benefits is $48,060.

Things are even worse if the worker changes jobs more frequently. Suppose our hypothetical worker changes jobs every 10 years--in each case after becoming fully vested--and experiences the same salary history as before. In this case, the worker will receive pension benefits from four separate employers. But the present value of the worker's pension benefits now is only $44,921. Changing jobs has "cost" this employee $67,982 in reduced pension benefits.

The results of these calculations, together with the assumptions used, are presented in Table I.

TABLE I

JOB STATUS	PRESENT VALUE OF PENSION BENEFITS
No Job Change	$112,903.00
One Job Change After 20 Years	64,843.00
Three Job Changes, (one every 10 years)	44,921.00

Assumptions: Discount Rate: 9 percent per year
Life Expectancy at time of retirement: 12 years
Retirement Age: 65 years
Career Span: 40 years
Salary Growth: 10 percent per year
Benefit Formula: .015 x No. of years of employment x average salary of final 3 years.
Vesting: Fully vested in all plans

Source: Author calculations

As these calculations show, pension plans which are back-end loaded make it very expensive for workers to change employers. Under these plans, workers give up literally tens of thousands of dollars in pension benefits whenever they take advantage of new job opportunities. Moreover, several studies have shown that workers respond to these incentives by being reluctant to change jobs.[13] The result is a much less mobile labor force and an economy which is much less able to allocate resources efficiently in response to changing market conditions.

This problem is almost unique to defined-benefit pension plans. The problem does not arise under defined-contribution plans, because money set aside on workers' behalf continues to earn interest and grow in value regardless of how many employers they have during their working years.

Pension plans that impose heavy penalties on job changing are bad not only for the economy as a whole, they also are unattractive to individual workers because they impose high costs on the exercise of freedom of choice in the labor market. Why, then, do such plans exist? One rationale is that they are a way employers can encourage employees to remain with the firm, instead of taking other job offers.

While this may help explain why employers prefer such plans, it does not explain what advantage there is for employees. Pension benefits, after all, are a fringe benefit paid in lieu of wages. They are properly viewed as part of a total package of benefits which employers offer in their attempt to attract desirable employees. It would make little sense for an employer to offer lower wages in order to provide a fringe benefit which most employees find unattractive.

One possible answer to this question is provided by a study which argues that labor unions negotiate defined-benefit pension arrangements because it is in the self-interest of the senior workers who tend to control and dominate union policies.[14] Older, more senior workers tend to benefit from these pension plans. For one thing, they have no plans to change employers. For another, their seniority gives them greater protection against the adverse contingency of lay-offs. Perhaps more important, the loss of pension benefits by younger workers who <u>are</u> laid off or who change jobs voluntarily makes it possible for the employers to pay larger pension benefits to workers who are not as likely to leave. Unfortunately, for the young worker who prefers flexibility and the opportunity to offer his labor services to the highest bidder, the unior leaders who negotiate pension benefits with management frequently have different interests.

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[13]See Olivia Mitchell, "Fringe Benefits and Labor Mobility," <u>The Journal of Human Resources</u>, Spring 1982, pp. 286-298, and Bradley R. Schiller and Randall D. Weiss, "The Impact of Private Pensions on Firm Attachment," <u>Review of Economics and Statistics</u>, August 1979, pp. 369-380.

[14]Harpham, "Private Pensions in Crisis: The Case for Radical Reform," pp. 29-32.

PROBLEMS WITH DEFINED-BENEFIT PLANS: TERMINATIONS

Another irksome issue connected with defined-benefit pension plans is the recent spate of pension plan terminations. Under current law, an employer can terminate a pension plan when the plan's assets exceed its accrued liability. Ironically, in calculating the accrued liability, the employer has no obligation to take into consideration the fact that employees are likely to remain with the firm and experience further pay increases. The employer is required to calculate only what would be owed if the plan were ended at the moment the calculation is made.

As an example of what this means, consider a worker who has been with a company for 10 years, who is fully vested, and who has earned an average salary of $30,000 over the last three years. Using our previous benefit formula, the employer's pension liability is calculated in the following way:

$$\text{Annual Pension Benefit} = .015 \times 10 \times \$30{,}000$$

$$= \$4{,}500$$

However, the company does not owe the worker the $4,500 until he retires; and in the intervening years the company is under no obligation to increase that amount to take into account inflation or productivity increases.

Let us suppose that the worker will reach retirement age in 30 years. Then the employer's pension liability is $4,500 per year for each expected year of retirement, beginning 30 years from now. The present value of this obligation (at a nine percent discount rate) is about $339 for the first year of expected retirement and less in each successive year. By contrast, if the pension plan were continued for 30 more years, and if the worker received wage increases that merely kept pace with average wage increases in the economy, the employer's obligation would be about $18,000 for each year of expected retirement at today's prices.

TABLE 2

EMPLOYER'S ANNUAL PENSION LIABILITY CALCULATED AT TODAY'S PRICES

Plan is terminated today	$ 339
Plan continues for 30 more years	$18,000

*Assumes worker's wages will increase at a rate equal to the market rate of interest.

This example illustrates why companies often find it in their self-interest to terminate pension plans. When pension liabilities are calculated in this way, companies frequently find that pension assets exceed pension liabilities. After the plan is terminated and annuities are purchased for the workers, the company often pockets the difference.

A great many companies are responding to this incentive.[15]

- From 1979 to 1984, a total of $4.3 billion of pension fund assets were reclaimed by employers through pension plan terminations.
- In 1984, private pension plans had another $350 billion or more in surplus assets that potentially could be reclaimed by plan terminations.

Terminations, in effect, take accumulated assets that are useful to cover the future growth of pension liabilities (due to longer careers and employee pay raises) and return them to the companies. This has the potential to leave employees with smaller and riskier pensions when they retire. Usually after such terminations occur, new, nearly identical plans are set up. Sometimes they give past service credit so prior years of work count in establishing future benefits, but generally there is no obligation for employers to do this.

Terminations of this type are unique to defined-benefit plans. They arise because of an inherent conflict between federal law and reality. The law construes a company's pension liability to be only what already has been accrued by the worker, giving no weight to future work. However, workers generally enter into pension agreements under the expectation that the plans will be continued and benefits will be paid based on future work.

PROBLEMS WITH DEFINED-BENEFIT PLANS: UNDERFUNDING

Although defined-benefit plans, on the whole, are overfunded in the legal sense, they are seriously underfunded if one performs actuarial computations that measure liability in a way that gives credit to future work and likely pay raises.

Richard Ippolito of the Department of Labor has calculated the economic liability of defined-benefit plans in the U.S. on the assumption that these plans will not be terminated and will continue until current workers retire. According to Ippolito,[16]

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[15]Richard A. Ippolito, op.cit. pp. 288-ff.

[16]Richard A. Ippolito, op cit. Table 4.2.

- Without the ability to terminate, defined-benefit pension funds in the aggregate are about 25 percent underfunded in the economic sense.

- Calculated in this way, the economic liability of these funds exceeds reported liability by more than $150 billion.

As a result, potential claims against the federal government's pension insurance scheme and subsequently against the public purse are far greater than generally is perceived.

With defined-contribution pension plans, assets always equal liabilities. Defined-contribution plans are, by definition, always fully funded, because whatever workers are entitled to is immediately set aside and invested.

PROBLEMS WITH DEFINED-BENEFIT PLANS: LOW RATES OF RETURN

The rates of return earned by pension fund investment managers have not been very good. Some would even suggest that they are poorly managed,[17] but we do not know whether the poor results are the consequences of decisions made by the investment managers or the sponsoring companies.

- Over the period 1961-1981, the return earned by mutual funds was 7.3 percent.

- The average return earned by pension funds was only 6.7 percent.

Comparisons of pension fund performance with the performance of other portfolios are depicted in Table 3. As the Table shows, when pension funds invest in bonds, they earn a lower rate than do Treasury Bills. When pension funds invest in the stock market, their rate of return is lower than the stock market average. When pension funds invest in a mixture of stocks and bonds, they do not do as well as mutual funds making similar investments.

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[17]Roy A. Schotland, "Why Mutual Funds are Top Performers," Pension and Investment Age, July 20, 1981, p. 13.

TABLE 3

RATES OF RETURN

Period	Type of Investment	Annual Rate Of Return
1961-1981	A.G. Becker Pension Funds (Total Plan)[a]	6.7%
	Lipper Mutual Funds (Balanced Funds)	7.3%
1963-1982	A.G. Becker Pension Funds (Equities)[b]	7.8%
	Standard & Poor's 500 Index	8.3%
1963-1982	A.G. Becker Pension Funds (Bonds)[b]	5.9%
	90-day Treasury Bills	6.5%
1981-1985 (first quarter/ first quarter)	Wilshire Associates Pension Data Base (Equities)[c]	17.72%
	Standard & Poor's 500 Index	17.63%
	Wilshire 5000 Index	17.83%

SOURCES:

a Roy A. Schotland, "Why Mutual Funds are Top Performers" Pensions and Investment Age, July 20, 1981. Updated by Professor Schotland.

b Alicia Munnell, "Who Should Manage the Assets of Collectively Bargained Funds," New England Economic Review, July/August 1983, pp. 18-30.

c George Wolfe, "A Consultant's Viewpoint: Perspectives on Manager Performance and Manager Selection," Wilshire Associates, May 9, 1985.

In all of these comparisons, defined-benefit plans are lumped together with defined-contribution plans. To date, I know of no good comparison between the performance of defined-benefit and defined-contribution plans. However, under many defined-contribution plans, workers are allowed to make their own choices about how their pension fund money will be invested. At some colleges and universities, for example, employees can choose from among 30 different funds offering a wide range of investment options. These employees have the opportunity to earn a much higher rate of return than the average rate of return earned by traditional pension managers.

I have previously referred to the concern (voiced by Robert Monks and others) that when individuals are allowed to make their own investment choices, they can hardly be expected to succeed where "the experts" have failed. The "experts" themselves have not matched the returns available in the market, however.[18] Moreover, individuals can do better than the experts by making relatively simple choices. For example, by investing in a mutual fund that buys a wide selection of stocks and does a minimum amount of trading, individuals can be assured of earning a rate of return that is fairly close to what the market as a whole pays. Based on past experience, this practice would be likely to generate a return higher than that earned by the average pension fund.

At present, no one knows why pension funds perform so poorly. However, there is evidence to indicate that one reason is frequent trading by pension fund managers; another is frequent changes in investment strategy on the part of the sponsoring company. Numerous studies have shown that it is difficult to identify consistently the winners and losers in the stock market. As a result, funds which pick a broad-based selection of stocks and simply hold onto them often do as well or better than funds which buy and sell stocks frequently. A recent study showed that, among pension funds, the ones that had the highest performance were the ones that had the fewest portfolio changes.[19]

The reason why buying and selling stocks frequently leads to poor overall performance is the fact that every time a fund buys or sells a share of stock it must pay a brokerage commission and other costs. For large funds, these commissions plus other trading costs average about 1.5 percent on the round trip in and out of the stock market. This means that if a fund buys $1,000,000 worth of stock and then laters sells that stock, total transaction costs will be about $15,000. If the fund makes many transactions, trading costs can mount quickly and substantially lower the fund's rate of return. As a result, making frequent changes in a fund's portfolio is always a bad idea unless the fund's managers are extremely good at knowing which stocks to buy and which ones to sell.

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[18]Robert A.G. Monks, "How to Earn More on $1 Trillion," Fortune, September 2, 1985, pp. 98-99.

[19]Dennis E. Logue and Richard J. Rogalski, Managing Corporate Pension Plans: The Impacts of Inflation, Washington, D.C.: American Enterprise Institute, 1984.

Despite mounting evidence that the prudent course is toward less-frequent portfolio changes, pension fund managers have been moving in the opposite direction--toward more buying and selling activity. One measure of the extent of this activity is a fund's turnover rate: the total of purchases or sales (whichever is smaller) divided by a fund's total assets. Over the last decade the turnover rate among pension funds has almost tripled.[20]

- In 1974, the turnover rate for pension plans was 25.8 percent.
- By 1983, the turnover rate for pension plans had climbed to 70.7 percent.

To justify a turnover rate of this magnitude, a pension fund manager must show that after the transactions are made, the new portfolio is earning a rate of return at least 1.1 percentage points higher (the trading cost of 1.5 percent times the turnover rate of 70.7 percent) than what the fund would have earned if no changes had been made. When asked why the turnover rate among pension funds is increasing in view of high transaction costs, many pension fund managers respond by saying that the pressure to perform leads them to engage in increased trading. But for the reasons stated, frequent trading puts the pension fund manager at a disadvantage which can be overcome only by making wiser (or luckier) choices than other managers in the market.

Another way pension plan performance is lowered is by a practice often employed when pension plan sponsoring companies change managers. All too frequently, the plan's sponsor simply allows the original managing firm to sell the entire portfolio, leaving the new managing firm with the necessity of buying an entirely new portfolio. In other words, what gets transferred to the new manager is not a portfolio; it is cash. This means that in changing pension managers the total assets of the fund are reduced by about 1.5 percent as a result of the commissions and other execution costs in order to get out of and back into the market. This occurs despite the fact that the new pension managers may end up purchasing many of the same stocks and bonds that were in the original portfolio.

PROBLEMS WITH DEFINED-BENEFIT PENSIONS: INFLATION

Inflation is another factor that determines the size of the pension benefits that workers ultimately get. With defined-benefit plans, inflation can seriously erode the purchasing power of pension benefits, once the worker has retired. Pensioners, then, must rely on the generosity of former employers to protect their benefits from inflation's ravages by voluntarily increasing payments. With defined-contribution plans, on the other hand, the

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[20]Based on a sample of pension plans (stock and bond funds) monitored by SEI, Inc. and analyzed by the author.

value of the assets tends to grow with inflation, thus increasing annual payments. Pensioners can get at least a modicum of inflation protection, and do not have to count on their former employers to do something that they have no obligation to do.

To see how inflation can erode pension benefits, consider the statistics in Table 4.

TABLE 4

Inflation Rate	Pension at Various Ages As a Percent of Final Pay (Adjusted for Inflation)			
	65	70	75	80
0%	60%	60.0%	60.0%	60.0%
4%	60%	49.3%	40.5%	33.3%
8%	60%	40.8%	27.8%	18.9%
12%	60%	34.0%	19.3%	11.0%

Assumptions: Final Annual Salary: $50,000
First Year Pension: $30,000

Defined-benefit plans are particularly prone to this sort of erosion. Companies are obligated to pay only what they promised. The retirees suffer.

As a practical matter, many companies voluntarily increased their pension payments in the late 1970s and early 1980s to offset the consequences of inflation, but they were not compelled to do so. In contrast, pure defined-contribution plans automatically compensate for inflation as long as the financial markets continue to provide positive real rates of return. So individuals who hold defined-contribution plans generally should not have to rely upon corporate largesse to obtain pension payments that will tend to keep better pace with inflation than fixed-benefit arrangements.

In each case, the worker is assumed to retire with a pension equal to 60 percent of final pay. With no inflation, the worker's pension continues to be equal to 60 percent of final pay. However,

- With an eight percent inflation rate, the worker's pension is more than halved (in real terms) in 10 years.
- With a 12 percent rate of inflation, the worker's pension (in real terms) is almost cut in half in five years, and in 15 years the pension is equal to only 11 percent of final pay.

CONCLUSION

The denial of tax benefits to defined-contribution plans would be a serious mistake. It could push employers and employees toward defined-benefit plans or toward no pension plan whatsoever. The former would hinder labor mobility, could result in many employees being paid a lower pension than they were promised, and could leave retirees without inflation protection. The latter would depress retirement savings, which in turn would hinder domestic capital investment and productivity growth. In addition, elimination of profit-sharing types of defined-contribution plans could reduce employees' incentives to work hard and help their companies prosper.

There is no compelling reason to support tax changes that deter the fastest growing segment of the pension system--defined-contribution plans. Nor is it sensible to revise the tax laws to favor a pension system that may be inferior in terms of investment performance. While these reforms may increase revenue and help reduce the size of the deficit, the harm would be far greater.

The present pension system seems to work well. It would be a mistake to use it to raise federal revenues when there are a variety of other ways to accomplish the same thing. Similarly, using tax legislation aimed at denying highly-paid executives the ability to shelter their income through supplementary defined-contribution plans seems foolhardy. Tax equity cannot be achieved by eliminating the tax-related benefits that millions of Americans use in order to collect a few more tax dollars from a few thousand individuals.

With respect to the role of the tax law in our dual pension systems, a policy of benign neglect is a policy well worth considering.

NOTE: Nothing written here should be construed as necessarily reflecting the views of the National Center for Policy Analysis or as an attempt to aid or hinder the passage of any bill before Congress.